

In the claims:

1. (Currently Amended) A method for wetting a substrate with a fluid, comprising: ~~the steps~~

- a) providing a substrate having a surface to be wetted;
- b) providing a wetting fluid;
- c) applying to the substrate a protective layer that separates the surface to be wetted from the surroundings;
- d) patterning the protective layer to expose predetermined wetting areas on the substrate surface to be wetted; and
- e) applying the wetting fluid to the exposed wetting areas by means of a wetting apparatus without direct contact between the wetting apparatus and the substrate surface to be wetted;

wherein the wetting apparatus exhibits a fluid-dispensing end surface whose lateral dimension in at least one direction in space is greater than the lateral dimension of the wetting area in the at least one direction in space.

2. (Currently Amended) The method according to claim 1, ~~characterized in that as the substrate is provided a solid consisting of~~ wherein the substrate comprises plastic, metal, semiconductor, glass, composite material or porous material ~~or consisting of a combination of these materials.~~

3. (Currently Amended) The method according to claim 1 ~~or 2,~~ ~~characterized in that as the substrate is provided a solid whose~~

~~surface to be wetted is formed by~~ wherein the surface to be wetted comprises a silicon layer, a platinum layer, a gold layer, ~~by an oxidic surface or a glass.~~

4. (Currently Amended) The method according ~~to one of the preceding claims to claim 1,~~ characterized in that ~~as the substrate is provided~~ wherein the substrate comprises a macroscopic solid disk, ~~or a micro-particle~~ or nanoparticle.

5. (Currently Amended) The method according ~~to one of the preceding claims claim 1,~~ characterized in that ~~as~~ wherein the wetting fluid is provided comprises a purely liquid substance, a solution of organic and/or inorganic substances, an emulsion, a suspension or a colloidal solution.

6. (Currently Amended) The method according ~~to one of the preceding claims claim 1,~~ characterized in that ~~the material of wherein the protective layer is so coordinated with the substrate material that the protective layer material is~~ physisorbed or chemisorbed on the substrate surface to be wetted, or bound to ~~it~~ the substrate surface to be wetted covalently, coordinatively or by complex formation.

7. (Currently Amended) The method according ~~to one of the preceding claims claim 1,~~ characterized in that ~~as~~ wherein the protective layer, comprises a positive or negative photoresist ~~is applied to the substrate, preferably is sprayed on or spun on.~~

8. (Currently Amended) The method according ~~to one of claims 1 to 6,~~ characterized in that ~~as the protective layer is applied~~

~~to the substrate~~ claim 1 wherein the protective layer comprises a solder resist, preferably that the said solder resist is applied by screen printing, curtain coating or a spraying method.

9. (Currently Amended) The method according to ~~one of claims 1 to 6,~~ characterized in that as wherein the protective layer is applied to the substrate an organic polymer, especially consisting of comprising cellulose, dextran or collagen, preferably that the organic polymer is spun on or applied by physisorption.

10. (Currently Amended) The method according to ~~one of claims 1 to 6,~~ characterized in that as the claim 1 wherein the protective layer is applied a self-assembled monolayer consisting of comprising organic molecules.

11. (Currently Amended) The method according to claim 10, characterized in that wherein the self-assembled monolayer is applied in that the by organic molecules are dissolved in a solution comprising an aqueous or organic solvent and bringing the solution is brought into contact with the substrate.

12. (Currently Amended) The method according to claim 10 ~~or 11,~~ characterized in that as wherein the substrate is provided a solid whose surface to be wetted is formed by a gold layer, and that as the protective layer is applied a self-assembled monolayer consisting of comprising thiols, especially having the general structure HS-spacer-R or [S-spacer-R]<sub>2</sub>, wherein R is any headgroup and the spacer has a chain length of 1 - 20, especially 1 - 14.

13. canceled.

14. canceled.

15. canceled.

16. canceled.

17. canceled.

18. (Currently Amended) The method according to ~~one of the preceding claims, characterized in that~~ claim 1 wherein the protective layer is patterned by means of laser ablation, especially by irradiation of sub-regions of the protective layer with continuous or pulsed laser radiation of a predetermined wavelength.

19. canceled.

20. canceled.

21. (Currently Amended) The method according to ~~one of the preceding claims, characterized in that~~ claim 1 wherein the protective layer is removed without residue in the region of the wetting areas.

22. canceled.

23. canceled.

24. canceled.

25. The method according to ~~one of the preceding claims, characterized in that in the step of patterning the protective layer,~~ claim 1 further comprising the step of introducing supply channels ~~are introduced~~ into the protective layer to facilitate the supply of an analyte fluid to the exposed wetting areas.

26. canceled.

27. canceled.

28. canceled.

29. canceled.

30. canceled.

31. (Currently Amended) The method according to claim 1 ~~30~~, ~~characterized in that~~ wherein the end surface of the wetting apparatus exhibits in both directions in space a larger lateral dimension than the wetting areas.

32. (Currently Amended) The method according to claim 1 ~~30 or 31~~, ~~characterized in that for the application of the wetting fluid,~~ wherein the end surface of the wetting apparatus is, at one wetting area, brought into contact with the protective layer adjoining said wetting area.

33. (Currently Amended) The method according to claim 1 wherein ~~one of claims 30 to 32, characterized in that for the application of the wetting fluid,~~ the end surface of the wetting apparatus is, across the entire wetting area and from above, brought into contact with the surface of the protective layer adjoining the wetting area.

34. (Currently Amended) The method according to ~~one of claims 30 to 33, characterized in that~~ claim 1 wherein the end surface of the wetting apparatus is positionable laterally above a patterned protective layer with a precision  $(\Delta x, \Delta y)$ , and the wetting areas are created with a characteristic lateral dimension  $(x_{spot}, y_{spot})$  that is smaller than the lateral dimension

( $x_{tip}, y_{tip}$ ) of the end surface of the wetting apparatus by at least the positioning precision ( $\Delta x, \Delta y$ ).

35. (Currently Amended) The method according to ~~one of the preceding claims, characterized in that as the wetting fluid,~~ claim 1 wherein the wetting fluid comprises a modified nucleic acid oligomers in aqueous solution ~~are applied, the said nucleic acid oligomers being modified with one or more reactive groups, and at least one reactive group being designed for a direct reaction with the substrate surface to be wetted.~~

36. canceled.

37. canceled.

38. canceled.

39. canceled.

40. canceled.